

Lacamas Creek Watershed

Description of the watershed

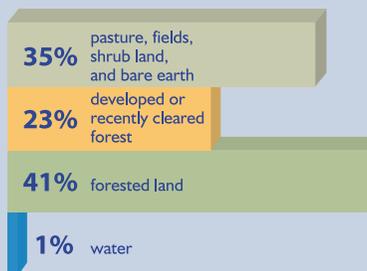
The Lacamas Creek watershed is about 67 square miles of forest, farm, residential, commercial, and industrial land. Located in southeastern Clark County, the watershed extends from Hockinson on the north to Camas on the south. Roads such as State Route 503 and NE 162nd Avenue form its western boundary, and Elkhorn and Livingston Mountains, its eastern boundary. Most of the watershed is in unincorporated Clark County. A significant area southwest of Lacamas Lake is within the City of Camas. The eastern edge of Vancouver also extends into the watershed.

Lacamas Creek has five major tributaries: Matney Creek, Shanghai Creek, Fifth Plain Creek, China Ditch, and Dwyer Creek. There are also many smaller streams. Lacamas Creek flows about 12.5 miles from relatively undisturbed forest headwaters, through rural, agricultural, and residential areas, into Lacamas and Round Lakes. Below the lakes, Lacamas Creek drops through a series of scenic waterfalls, and finally into the Washougal River.

Lacamas and Round Lakes are well used for boating, water skiing, fishing, canoeing, and swimming. The 3.5-mile Heritage Trail brings access to the entire southwestern shore of Lacamas Lake. Lacamas Park is a 312-acre county park that surrounds Round Lake and offers an extensive system of trails, scenic views, picnic spots, and access to the lake and Lower Lacamas Creek waterfalls.

Beginning in the 1890s, several manmade channels were built in the Brush Prairie area to drain wetlands for farmland and to increase the volume of water available to Camas mills. This area includes almost all the channels in the China Ditch system. While considered an improvement when built, we now see some of the unintended consequences of these channels. With significantly fewer wetland areas to store runoff from rainstorms, higher volumes of stormwater are funneled more quickly into streams, eroding our stream banks and causing increased flooding in low-lying lands.

Land uses in Lacamas Creek Watershed



According to a July 2000 satellite image, the University of Washington recently determined that land use in the Lacamas watershed is about 41 percent forested land and about 23 percent developed land or recently cleared forest. Recent research suggests that watershed health begins to decline significantly once forestland is reduced to less than 65 percent of the watershed area.

Overview of Lacamas Creek watershed health

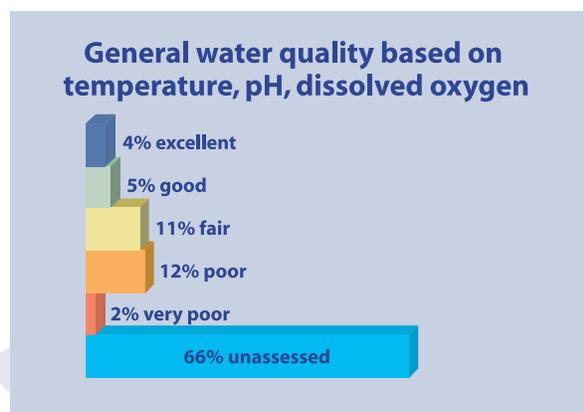
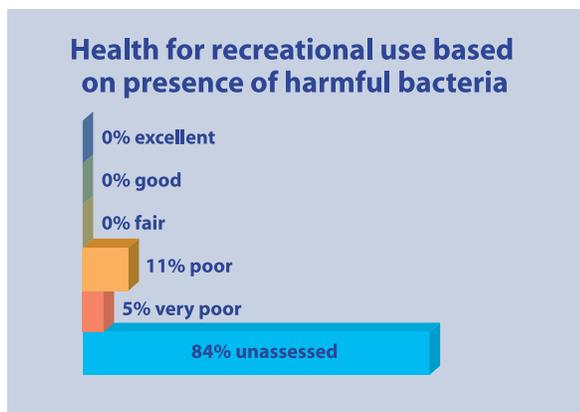
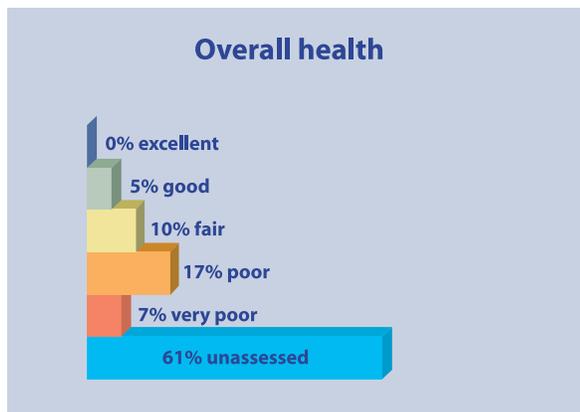
Monitoring results are available for approximately 39 percent of the watershed's streams that flow year-round and Lacamas Lake. This data agrees with what would be expected by looking at a map of land uses.

The observed health of Lacamas Creek watershed streams ranges from good to very poor. Stream health is best in the upland areas of relatively undisturbed forest, but declines markedly as streams flow through agricultural, suburban, and urban areas.

Lacamas and Round Lakes are in fair health. Manmade channels, such as China Ditch, are in very poor health.

How healthy are the Lacamas Creek watershed streams?

The following bar charts show the percentage of individual stream and lake health ratings in the Lacamas Creek watershed. More than 60 percent of this watershed is not currently assessed. Of the areas for which there is monitoring data available, most is rated fair to poor.



Changes in Lacamas Lake sedimentation



Sediment accumulations increased markedly as the watershed develops from forest to farms and suburban homes.

How healthy are Lacamas Creek watershed lakes?

Lacamas Lake and Round Lake are virtually one lake, linked by a short channel. Both are rated in fair health. They can support warm water of aquatic life and recreational use.

Lake health suffers due to sediment and nutrients carried to it by Lacamas Creek. During the summer, the lake often lacks sufficient oxygen for fish to thrive. Lacamas Creek carries eroded soil from construction projects, logging activities, and fields into the lake where it provides nutrients for excessive algae and plant growth. Sedimentation increased greatly during the second half of the 20th century as upstream lands were cleared and developed. In fact, sedimentation rates today are eight times greater than those of the early 1800s. Both lakes are considered “eutrophic,” which means they are over-enriched with excessive plant growth.

Overall, lake health is not getting worse, despite current high rates of development in its drainage area.

Monitoring data show that there was some improvement in the amount of sediment entering the lake between the early 1980s and the late 1990s. However, ongoing monitoring shows no changes in recent years.

What are nutrients and why are they a problem?

Nutrients are substances such as phosphorus and nitrogen found in fertilizer, soil particles, and animal and human waste that support plant growth. In lakes and streams, nutrients encourage excessive growth of algae and water plants. When the algae die and break down, this process uses up the oxygen in the water. Excessive algal blooms deplete oxygen to the point that the lake or pond cannot support fish and aquatic life.

